

ABSTRACT OF THE DISCLOSURE

A kind of piezoceramic shaft-driving type ultrasonic motor is a piezoelectric disc device as the driving stator of the motor in which the A.C power is supplied to form extend-contract motion of piezoceramic based on converse piezoelectric
5 effect. The flexural wave of back plate is generated by push-pull force of piezoceramic oscillation. By utilizing the pin head above the stator as the dynamic shaft bearing wherein the rotor being drive is connected directly on the bearing to transmit the power with friction contact force. The rotating speed of the prototype motor could be reached as high as 3000 rpm on the driving condition of 74 kHz,
10 voltage +/-10Vpp, and 0.2 A current, wherein the torque is about 0.003 N • m. It could be utilized in the driver of CD, the actuator in the biomedical engineering, or the cooling fan in the computer CPU.